Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 15 of the	)	ET Docket No. 99-231
Commission's Rules Regarding	)	
Spread Spectrum Devices	)	

To The Commission

Reply to Opposition
To Petition for Reconsideration

Warren C. Havens ("Havens") and Telesaurus Holdings GB, LLC ("Telesaurus") (in which Havens holds majority controlling interest) (together, "LMS Wireless," their DBA ["LMSW"]), filed a petition for reconsideration regarding the *Second Report and Order*, released May 30, 2002, in the above-captioned docket *("Second R&O")* (the "Petition"). Several parties filed Oppositions thereto (the "Opposing Parties," the "Oppositions"). LMWS hereby replies.

Background

In the Petition, LMSW asked that the Commission defer making any changes to Part 15 rules that apply to the 902-928 MHz band (herein, the "New Part 15 900 MHz Rules") until it completed the proceeding regarding the Progeny Petition (defined in the Petition) regarding rules for the LMS sub-bands within 902-928 MHz, and in relation thereto, considered the LMSW white paper and related request for rule changes also concerning the LMS sub-bands, as well as the rest of the 902-928 MHz band (together, the "LMSW Proposal"). The Progeny Petition and the LMSW Proposal each suggest rule

changes that would effect unlicensed Part 15 operations in the 902-928 MHz band, and each seek more flexibility in LMS rules. The Petition proposed that "*unlicensed* Part 15 operations should not be granted increased flexibility [under the Second R&O] in the 902-928 MHz band via the Second R&O if that is at the expense of *licensed* LMS operations." The Petition gave reasons why such increased flexibility would create that effect. Accordingly, the Petition sought both to defer application of the "New Part 15 900 MHz Rules" but also to reconsider them. (Several Oppositions alleged that the Petition sought only to defer them.)

The Petition described the LMSW white paper. Called the "ATLIS" proposal, this has now been filed in the Progeny Proceeding, in other proceedings, with the Spectrum Task Force, and with the Commissioners offices.[1] LMSW has been communicating with persons representing the majority of US Public Safety and Critical Infrastructure, has identified these persons and described this communications to FCC staff, and is next week commencing meetings with senior FCC staff regarding the ATLIS proposal. As noted in the Petition, one topic will be filing of a petition for rulemaking regarding the 902-928 MHz band to be considered along with the Progeny Proceeding. Accordingly, LMSW has proceeding as it described in the Petition.

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[1] The "ATLIS" proposal with appropriate accompanying pleadings has been filed in relevant FCC dockets: (i) Reply Comments in the Spectrum Task Force ET Docket 02-135, (ii) an Ex Parte filed letter to the Commissioners in the proceeding initiated by Progeny LMS LLC for consideration of new rules in the 902-928 MHz band, Docket RM-10403, (iii) Reply Comments in the 4.9 GHz WT Docket No. 00-32, (iv) a petition for reconsideration in the AMTS (217-218/ 219-220 MHz) proceeding, PR Docket No. 92-257 (asking not to auction this spectrum but set it aside for PS and CI), and (v) in Reply Comments in the proceeding concerning the Access Spectrum (Access 220) waiver request in the 220-222 MHz band, WT Docket No. 02-224 (suggesting that 220 MHz does not need Band-Manager licensing as much as it does a larger solution, as ATLIS would provide).

The Opposing Parties State No Relevant Interest.

Oppositions were filed by Agere Systems ("Agere"), Intersil Corporation and Symbol Technologies, Inc. ("ICST"), and The License Exempt Alliance ("LEA").[2]

Agere describes itself as "major manufacturer" of part 15 devices. It does not allege that it makes devices for the 902-928 MHz band, whether major in quantity or not.

ISCT describes Intersil Corporation as the leading manufacturer of integrated circuit chipsets for wireless networking applications, and Symbol Technolgies, Inc. as a global leader in certain mobile data systems. Neither is described as producing or using any Part 15 devices for any band, including the 902-928 MHz band.

LEA describes itself as coalition of companies who make or use unlicensed Part 15 devices in the 902-928 MHz, 2.4 GHz, and 5 GHz bands for "broadband" service. It gives no indication of the extent to which its members make or use devices in the 902-298 MHz band (other than regarding WaveRider, who responded for itself: see above) and thus the relevance of this indication cannot be determined.[3] Further, it does not list its members, and appears to be only an informal "alliance" with no authority to represent its loose members in any formal action and be liable and responsible for such. There is no telling who is actually speaking and for whom.

Accordingly, Agere and ISCT assert no interest in the matter of the Petition and thus, their Oppositions cannot be reasonably considered, and LEA's Opposition does not

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[2] In addition, WaveRider filed on the eight days beyond the deadline for Oppositions "Reply Comments" with content similar to the LEA Opposition. WaveRider did not submit a request for waiver of the deadline and gave no cause of any kind for this very late filing. It gave LMSW only one business day to consider its filing before the deadline for LMSW to Reply. Thus, this filing should not be considered as a bonafide Opposition or for any other purpose. However, we address certain aspects of it in a separate section below, since it actually supports a key argument of LMSW.

even represent any disclosed entity nor indicate any extent to which its undisclosed members use 902-928 MHz (except for WaveRider, which filed its own untimely comments, see above), and thus its Opposition also cannot reasonably be considered.

LMSW, however, has major, disclosed, measurable interests: it holds A-block LMS licenses for the vast majority of the nation.

Clearly, the Opposing Parties, who all claim to be major operations, and are represented by competent counsel, would have described the nature and extent of their Part-15 interests in this band if they had any or if the were substantial enough to warrant consideration. For this reason alone, the Oppositions fail.

No Opposition by the Major Part 15 Entities
Who Filed in the Progeny Proceeding

In the Progeny Proceeding, opposing comments were filed by various companies who make or use for systems Part 15 devices in 902-928 MHz. It is significant that none of these of these companies that provide demonstrably significant amounts of equipment for this band filed an opposition to the Petition.[4]

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[4] For example, while LEA and WaveRider refer to large numbers of Part 15 devices in this band for automatic meter reading, the companies who make this and filed in the Progeny proceeding did not file and opposition to the Petition. Further, the LEA comment in footnote 13 regarding "$1.3 billion of investments in technology development and deployed and warehoused Ricochet assets that rely on the Part 15 Rules" is grossly misleading as LEA must know. LMSW met with Metricom numerous times, initiated a $100,000 joint study with Metricom, and followed its SEC filings, bankruptcy, and "fire sale" for nominal amount. As is clear in public documents on this bankruptcy and sale, and the pre-sale SEC filings, the vast majority of this $1.3 billion is spent and gone, and what remains in terms of technology IP of any value, and now years-old technology and assets, is worth what was paid for it, which was in pennies on the dollar, and much of that value lies not in assets that do not "rely on the Part 15 Rules" for the 902-928 MHz band. Rather, the failure of Ricochet demonstrates that low-power Part 15, even without having to contend with LMS operations (there were some grandfathered

No Party Can Assert Interest in Spectrum Used on Unlicensed Basis;
Pleadings Can Only Argue for the Public Interest.

The Petition Asserted Strong Public Interest
Which the Oppositions Failed to Refute

The Opposing Parties suggest that the have an "interest" in the spectrum that is subject of the Petition. However, they do not. They have no vested rights to the 902-928 MHz band, and are not entitled to protection from interference from LMS-M.[5] In relation thereto, such parties have, at best, a voice in this proceeding to argue for what they may feel are public interests of Part 15 operations in this band, and not for their self interests

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LMS stations in the Ricochet service area, but they did not have heavy use) does not succeed. Part 15 devices do not have the power, nor under the Safe Harbor (§90.361) the height-power, for cost effective wide-area networks. Part 15 is good for networks contained within a building or a campus, where the owner or manager can control the system and thus, at least for the most part, maintain suitable operation without excessive interference to the operation.

[5] See Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, PR Docket No. 93-61, *Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, FCC 97-305 (released September 16, 1997), ¶ 69, and ¶32, citing in footnotes 47 CFR Part 15 rules 15.5(a) and (b). See also FCC 95-41 ¶ 35, citing §15.5 (a), (b), and (c)]:

> Section 15.5 General conditions of operation.
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> (a) Persons operating intentional or unintentional radiators shall not be deemed to have any vested or recognizable right to continued use of any given frequency by virtue of prior registration or certification of equipment, or, for power line carrier systems, on the basis of prior notification of use pursuant to Section 90.63(g) of this chapter.
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> (b) Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.
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> (c) The operator of a radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference. Operation shall not resume until the condition causing the harmful interference has been corrected.

since they have no vested rights and standing regarding self interests.[6] If they want vested rights and interference protection, and such standing in rulemaking and legal proceedings, they may, like anyone else, acquire such rights at FCC spectrum license auctions or on the secondary market. They can demonstrate no injury by way of proposed rule changes suggested by Progeny, or by LMSW in its Comments, since they have paid no consideration and have no vested rights and standing.

The Part 15 Commentators paid no consideration for use of the frequencies they assert rights to use protected from LMS-M. Further, none were participants in the LMS rulemaking resulting in the current rules. Part 15 entities who did comment on past rulemaking, including Metricom and Cellnet Data Systems, failed, and now a new crop of Part 15 Entities are commenting (in the Progeny Proceeding and/or regarding this Petition), which is indicative of the lack of viability of Part 15 systems for wide-area or wide-scale commercial applications. Indeed, also reflecting such lack of viability or even conceptual soundness, the LMS rulemaking proceedings do not reflect the FCC considering such wide-area Part 15 system applications, only *local*-area networks or individual device operations.[7] Further, as noted in the LMSW Comments in the Progeny

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[6] While comments of such parties with no vested spectrum rights have been accepted by the Commission as a practice, they do not have standing in formal legal proceedings. See, e.g*., SunCom v. FCC*, US Court of Appeals, DC Circuit, Decided July 9, 1996. Commission rules and rulemaking pertaining to Part 15 operations, including the "Safe Harbor" under §90.361, are for public interest purposes, not to benefit any vendor of or operator of Part 15 devices. Accordingly, the Commission may change rules pertaining to such Part 15 devices when in the public interest (including lessening or phasing out access to a spectrum band by such devices) and in so doing may not properly consider erroneous suggestions by Part 15 Entities as to vested spectrum rights or formal legal standing regarding rules of such spectrum based on such right.

[7] See, e.g., Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, PR Docket No. 93-61: (1) *Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, FCC 97-305 (released

Proceeding, and contrary to suggestions by Part 15 Commentators in that proceeding otherwise, such proceedings did indeed, in many places, explain an *essential assumption* behind the current Safe Harbor, which is that Part 15 devices would not be located, or rarely be located, in close proximity to LMS transmitters (discussed further below),[8] and resting on this assumption, the Safe Harbor established power and height limitations.

Thus, the Opposing Parties can only speak for public interest, not their own. In terms of the Public Interest, the public has spoken loud and clear: it wants Homeland Security, safe and efficient operation of Public Safety and Critical Infrastructure. It wants these more than the services the Opposing Parties vaguely suggest they provide in this band. The Oppositions do not even address the clear proposal LMSW made to use this band for these most clear public interests. Nor the address the fact that LMSW raised in its comments and reply comments in the Progeny Proceeding (which the Oppositions discuss) as to why the higher bands are many times the size and better for unlicensed operations. As Motorola noted in its August 30, 2002 white paper to the Spectrum Task Force (see below), there is ample spectrum in higher bands available if unlicensed operations need more spectrum. It is a waste of good mobile spectrum in the 900 MHz band to encumber it with proliferation of unlicensed operations and new rules facilitating that.

Primary Oppositions' Arument: the New Rules Change Nothing:
A New Device has Same Effect as a Device Under the Old Rules

September 16, 1997), ¶ 4, and (2) *Report and Order*, FCC 95-41 (released February 6, 1995), ¶ 34.

[8] See Comments by LMSW in this proceeding wherein, in the text and in referenced sections of the attachment, LMSW cites particular language from Commission rulemaking on this matter.

That captioned argument proves nothing. LMSW asserted that the new rules, subject of the Petition, were sought to enable Part 15 vendors and device operators to obtain the enhancements they sought under the new rules. No party would seek these without expecting to profit from it, by way of increased or prolonged sales and uses of devices, leading to increased traffic and noise to LMS operations, and under the LMWS Proposal, also to Public Safety and Critical Infrastructure licensed uses.

If Part 15 entities want to use *a* device LMSW cannot complain. But the problem, as discussed at length by LMSW in its Comments and Reply Comments in the Progeny Proceeding, is that there can be many Part 15 devices, with no limitation on quantities, where they are placed, no FCC record of stations, and in many case, no way to track down the operators and users. It is a helter-skelter service when used outside of indoor or outdoor premises controlled by a person or business.

Part 15 Operations Should not Be Enhanced in 902-928 MHz

Motorola recently filed a white paper with the FCC Spectrum Task Force on August 30, 2002, in ET Docket 02-135. This describes well the problems of underlaying a licensed service with an unlicensed service. It also describes the need to use spectrum below 3 GHz for mobile wireless and why unlicensed operations should be in higher bands.

Unlicensed operations should be confined to bands most suitable for their technical limitations and usage intent. These bands are those above the spectrum range that is needed for mobile wireless systems, generally considered to be below 2 to 3 GHz. It is not only a waste of the very limited spectrum suitable for mobile wireless to use it for, or underlay and encumber it with, unlicensed operations. It is also technically better

for low-power unlicensed devices to use this higher band spectrum since its propagation is more confined to the areas being served, a particular indoor or outdoor facility or campus—not coverage of whole cites, markets, or regions. For a substantial discussion on this, see Motorola technical white paper filed August 30, 2002 with the FCC Spectrum Task Force, in ET Docket No. 02-135. For example:

The WaveRider "Reply Comments"

As Noted above, these "Reply Comments," intended as an opposition, were late filed and had no request for waiver showing good cause for not meeting the filing deadline. They should be disregarded. They do, however, make a fundamental point in favor of the LMSW Proposal and grant of the Petition, which is that the 902-928 MHz band affords radio propagation that is better for long-range coverage and penetration of buildings than the higher bands (2.4 GHz and 5 GHz unlicensed, or various licensed bands well above 900 MHz). See above discussion. This is not a reason why Part 15 should continue and be enhanced in 902-928 MHz. It is rather a prime reason why this band should be optimized to use these propagation strengths and not be encumbered, certainly not further encumbered by more flexible Part 15 rules, with an underlay of Part 15 devices whose location and proliferation re uncontrolled. This could not be clearer, especially when licensed use of the band, under the LMSW Proposal, is for mission critical communications including Public Safety and Critical Infrastructure.

Also, the WaveRider suggestions that what LMSW proposes In the LMSW Proposal and Petition regarding Part 15 rules could harm Public Safety interests is ludicrous. Public Safety and Critical Infrastructure use Part 15 only as a last resort, when they do not have spectrum for licensed operations that they can control, secure, and keep

from interference. The LMSW Proposal and Petition clearly make the case for optimizing the 902-928 MHz band for Public Safety and Critical Infrastructure. Further, the WaveRider systems will not, or will rarely, function as they claim if they operate within the Safe Harbor rules (§90.361). With those power/height limitations, only a very short distance can be covered by a base station, rendering impractical their operation which is designed for long-range coverage. Where LMS systems are deployed, if such Part 15 operations outside of the Safe Harbor cause interference, they have to cease operations or move within the Safe Harbor parameters.

Last year, LMSW contacted WaveRider and spoke to several top personnel. None had even heard of the LMS licenses in this band. It took some discussion to convince them that there were licenses issued in this band. Since then, they continue to communicate publicly concerning their products in this band with no disclosure of the LMS licenses or the Federal license rights, as if this is unlicensed band comparable to 2.4 GHz. LMSW submitted an article to appear soon in a Broadband wireless magazine to correct these matters.

Similarly, Metricom, before it went bankrupt and sold its assets for a nominal sum, publicly discussed its use of this band with no disclosure of the LMS licenses and their potential impact. This information was on the Metricom website and in SEC filings.

Part 15 entities do not want the LMS licensed operations to succeed and obtain any favorable rule changes (even if it is to serve Public Safety and Critical Infrastructure) since they want to use this band as if it is an exclusive band for their use: free spectrum. They have no real argument other than this. That argument fails. At the same time, they want to assert that they can obtain favorable rule changes to enhance their operations in

this band. That is hypocritical. Licensed services should receive regulatory flexibility for all of the fundamental reasons the Commission has consistently applied: to adapt to changes in the market, to better serve the market and expand services to new uses, to increase compatibility with or support of public service operations, to allow for new technology and spectrum efficiencies, etc.—all involved in the LMS Proposal, and some in the Progeny Proceeding. On the other hand, unlicensed operations may not be granted increased flexibility at the expense of licensed operations (including if it increases interference or potential interference to them).

Respectfully submitted, 9-16-02

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